

stroke (HR, 0.848, 95% CI, 0.583-1.231, $p=0.386$) were similar between the non-bifurcation group and the bifurcation group. The adjusted risk of definite ST tended to be higher in the bifurcation group than in the non-bifurcation group (HR, 3.536, 95% CI, 0.761-16.432, $p=0.107$). The risk of TVR was significantly higher in the group with bifurcation involvement than without involvement (HR, 1.641, 95% CI, 1.202-2.239, $p=0.002$). (Table)

Table. Hazard Ratios of Clinical Outcomes after Stenting in Patients with Bifurcation lesions as Compared with Patients with Ostial/Shaft lesions.

Outcome	Unadjusted analysis		Multivariate analysis	
	HR (95% CI)	P value	HR (95% CI)	P value
Death	1.048 (0.750 - 1.466)	0.784	0.852 (0.585 - 1.243)	0.407
Composite outcome	1.002 (0.719 - 1.397)	0.989	0.848 (0.583 - 1.231)	0.386
TVR	1.601 (1.179 - 2.175)	0.003	1.641 (1.202 - 2.239)	0.002
ST (definite)	3.094 (0.838 - 11.430)	0.090	3.536 (0.761 - 16.432)	0.107

Conclusion: During long-term (5-year) follow-up, PCI with stenting for distal LMCA lesions showed similar rates of mortality and of the composite of death, Q-wave MI, or stroke, but higher rate of TVR as compared with those for ostial/shaft LMCA disease.

TCT-15

Provisional T Stenting in the Treatment of Coronary Bifurcation Lesions with the New Generation of Paclitaxel Eluting Stents : Results of the French Multicenter Liberty One Study

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Background: Provisional T strategy appears to be effective in the treatment of coronary bifurcation lesions (CBL). As seen on the bench, Taxus Liberté is a well adapted platform. Preliminary results of our Monocenter Pilot Phase (106 patients) were very encouraging (stent thrombosis rate of 0.9% and 8-month TLR rate of 6.6%), therefore leading to perform a larger multicenter study.

Methods: the same T stenting technique was applied to all patients treated for coronary bifurcation lesions in the 19 french participating high volume centers. Data on consecutive patients were prospectively collected. The acute technical, angiographic and clinical results and the 12-month clinical status coupled with stress test were assessed.

Results: during the study period, 407 consecutive patients (mean age : 65 years, male : 78.9%) received a Taxus Liberté Stent (TLS) on the main branch (MB) of the bifurcation target lesions. Indication for coronary revascularisation was ACS: 48.7%, stable angina: 32.1%, silent ischemia: 19.2%. Mean ejection fraction was 56.4 +/- 11.3%, one vessel disease (VD) : 40.2%, 2VD : 31.3%, and 3VD : 28.5%. Treated bifurcations were LAD/DG : 61.3%, LCX/OM : 23.7%, RCA/PDA : 8.9%, RCA/ROM : 1%, LM/LAD or CX : 6.1%. Medina classification X₀X₀ : 40.8%, X₀X₁ : 59.2% (0,1 : 2.6%). Angle between branches less than 70° : 78.2%. Mean reference vessel diameter (RVD) was : MB : 3.21 mm, SB : 2.52 mm, % stenosis was MB : 75%, SB : 42%. Jailed wire: 82.6%. A second stent on the SB was implanted in 21.6% of CBL. A final KB was performed in 97%. Angiographic success (residual stenosis less than 30% MV and 50% SB) on both branches was obtained in 98% of CBL. Mean Procedural time : 41 mn, contrast media 231cc, fluo 23 mn. In-hospital results were: no death, no CABG, no QMI, no stent thrombosis, nonQMI : 1.6%. The one month stent thrombosis rate was 1.2%. The 12-month follow-up will be completed and presented

Conclusion: Provisional T stenting in the treatment of coronary bifurcation lesions with the new generation of paclitaxel eluting stents provided good immediate procedural and in-hospital results in this French multicenter experience. The 12-month clinical status coupled with stress test will be analysed and presented.

TCT-16

Five-Year Outcome of Patients With Bifurcation Lesions Treated With Provisional Side Branch T Stenting Using Drug-Eluting Stents

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Background: Coronary bifurcation lesions remain a challenge for interventional cardiologists, as lower success rates and higher reintervention rates persist in this lesion subset. The ideal strategy to treat such lesions is still debated and data regarding long-term efficacy and safety of drug-eluting stents in this setting are sparse.

Objectives: We sought to determine the long-term efficacy and safety of a provisional side branch T-stenting (PTS) strategy for bifurcation lesions in an unselected population.

Methods: 477 consecutive bifurcation procedures, performed between 2003 and 2005, were entered prospectively into a single-center registry. Drug-eluting stents, either paclitaxel or sirolimus, were used in all cases at the discretion of the operator. The PTS strategy was employed in 92%, with a side-branch stent in 28% and final kissing balloon inflation in 95%. Long-term follow-up, at a median of 61 months, is available for 93.5 % of patients.

Results: Angiographic success was achieved in 99%, with 2.5 % in-hospital major adverse cardiac events (MACE, defined as any cardiac death, early reintervention, Q - or non-Q-wave MI or target vessel revascularisation). The cumulative rate of MACE was 10.7 % at 1 year, 13.6% at 2 years and 19.7% at 5 years, including target vessel revascularisation rates of 6.9%, 8.9% and 13%, and cardiac death rates of 3%, 3.7% and 6.7%, respectively. Ischaemia-driven target lesion revascularisation at 5 years is 7.3%. The cumulative rate of definite or probable stent thrombosis at long-term is 3.1%, most cases occurring within the first year (2.5%). The need for reintervention in the long-term was not predicted by any procedural variable, and not significantly related to the use of 1 or 2 stents or to the type of stent deployed.

Conclusions: A provisional side branch T-stenting strategy with first generation drug-eluting stents, for bifurcation lesions, is applicable to over 90% of real-world patients. This series shows that deployment of drug-eluting stents in bifurcations using PTS strategy is safe and effective in the long-term, with a target lesion revascularisation < 10% at 5 years. The rate of very-late stent thrombosis in this complex lesion subset remains low.

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TCT-17

Clinical Outcome After Endovascular, Surgical or Hybrid Revascularisation in Patients with Combined Carotid and Coronary Artery Disease

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Background: Pluri-vascular disease is expanding with life expectancy. Few is known about patients with concomitant coronary artery disease (CAD) or carotid obstructive disease (COD) treated with surgical or endovascular interventions, or managed with a combined (hybrid) approach.

Aim of the study: To analyze the 30-day clinical outcome of patients with concomitant severe CAD and COD treated according to the "best standards of care" in 5 Italian high-volume centers.

Methods: 659 patients were included in the independent, non-profit FRIENDS (Finalized Research In Endovascular Strategies) study group database due to concomitant severe CAD and COD. Clinical follow-up at 30 days was obtained in all patients. Primary endpoint was the occurrence of MACCE at 30 days, including any death, MI and any stroke. Secondary endpoint included also the occurrence of TIA, major bleeding, acute kidney injury (AKI) and respiratory insufficiency (RI) needing mechanical ventilation.

Results: Incidence of death, MI and stroke was 0.9%, 1.1% and 2.3% respectively. AKI occurred in 2.4% and major bleedings in 4.4% of patients.

According to treatment forms patients were divided in 3 groups: Surgical, 185 patients (28.1%), Endovascular, 378 (57.4%), and Hybrid, 89 (13.5%). Seven patients (1%) were managed medically only. The primary endpoint occurred in 4.8%, 2.4% and 8.6% respectively, $p=0.01$. The secondary endpoint, that included the occurrence of AKI, RI and major bleedings occurred in 10.1%, 6.5% and 23.8% respectively, $p<0.001$. At multivariate logistic regression, AKI (OR=2.517; 95%CI=1.077-5.883, $p=0.03$) and treatment group (endovascular: OR=0.369; 95%CI=0.168-0.813, $p=0.01$ or hybrid: OR=3.098; 95%CI=1.359-7.060, $p=0.007$) predicted the primary endpoint. Age ($p=0.04$) and treatment group ($p=0.001$) were independent predictors of the secondary endpoint.

Comparison of the primary endpoint between 399 patients (61.2%) undergoing a double district revascularization versus a single-district revascularisation ($n=253$) yielded a non-significant higher incidence of MACCE in the double district group (logistic regression: OR=2.172; 95%CI=0.860-5.486, $p=0.1$). Such difference was significant for the secondary endpoint (logistic regression: OR=2.220; 95%CI=1.238-3.981, $p=0.007$).

Conclusions: Surgical and endovascular treatments yield very good immediate results; the later being less invasive, may be particularly suited to these fragile and complex patients if treated by experienced teams. Long-term results are under assessment.

TCT-18

Transradial and Translunar Access for Carotid Artery Stenting Using Deep Loop Retrograde Cannulation

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Background: Access site complications are the most common adverse event after carotid artery stenting (CAS) from the femoral approach (FA). Transradial access (TRA) is viable alternative to FA for CAS in selected cases.

Methods: One hundred forty five patients with carotid artery (CA) stenosis > 80% (mean age 68 ± 7.8 years) underwent CAS using wrist access: the right TRA (87%), right ulnar artery (9%) or left TRA (4%) as primary approach. Forty-nine (34%) were symptomatic and 96 (66%) were asymptomatic. Left CA was approached in 81 (56%); right CA in 64 (44%) and 7 patients (5%) underwent bilateral CAS. Target common CA (CCA) was cannulated with SIM 1-3 diagnostic catheter and exchanged for 6F guiding sheath or 7F guiding catheter. Depending on aortic arch configuration and CCA take off, three different cannulation techniques have been utilized: 1) Direct CCA cannulation, (7%); 2) Simple loop CCA cannulation (78%), and 3) Deep loop retrograde cannulation (DLRC) in 22 (15%) patients. Distal protection devices were used in 94% and direct stenting in 90% of patients.

Results: Primary success was achieved in 140 patients (97%). Intense radial spasm was reason for FA switch in 4 patients (3%) Mean interventional time was 42 ± 26 min. The sheath was removed immediately after procedure and patients were mobilized shortly after intervention. In hospital and at 30 days there was no incidence of death, major or minor stroke, nor myocardial infarction. Four patients (3%) experienced intraprocedural TIA's. There were no local site complications, except one case of difficult guiding sheath removal, necessitating RA preparation. RA occlusion was detected in 9 patients (6%) without any clinical consequences.

Conclusion: TRA or TUA using Deep Loop Retrograde Cannulation is feasible and safe alternative of direct and simple loop cannulation for CAS. Further studies are needed before recommending wrist access (TRA or TUA) for CAS as a primary approach over FA.